

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1. (Currently Amended) A synthetic nucleic acid molecule comprising a sequence of nucleotides that encodes a rhesus monkey carcinoembryonic antigen (CEA) protein ~~as set forth in SEQ ID NO:2 or SEQ ID NO:3~~, the synthetic nucleic acid molecule being codon-optimized for high level expression in a human cell, wherein the sequence of nucleotides comprises the sequence of nucleotides set forth in SEQ ID NO:1.

Claims 2-6. (Canceled)

Claim 7. (Original) A vector comprising the nucleic acid molecule of claim 1.

Claim 8. (Original) A host cell comprising the vector of claim 7.

Claim 9. (Original) A process for expressing a rhesus monkey carcinoembryonic antigen (CEA) protein in a recombinant host cell, comprising:

- (a) introducing a vector comprising the nucleic acid of claim 1 into a suitable host cell; and,
- (b) culturing the host cell under conditions which allow expression of said rhesus monkey CEA protein.

Claims 10-18. (Canceled)

Claim 19. (Currently Amended) A ~~vaccine~~ plasmid comprising ~~a plasmid portion and an expression cassette portion, the expression cassette portion comprising:~~

- (a) a polynucleotide encoding a rhesus monkey carcinoembryonic antigen (CEA) protein ~~as set forth in SEQ ID NO:2 or SEQ ID NO:3~~, the polynucleotide being codon-optimized for high-level expression in a human cell, wherein the polynucleotide comprises a sequence of nucleotides as set forth in SEQ ID NO:1; and
- (b) a promoter operably linked to the polynucleotide.

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Claims 20-29. (Canceled)

Claim 30 (New) The vector of claim 7, wherein the vector is an
adenovirus vector.